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Before the
Federal Communications Commission
Washington DC 20554

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JUN 22 2001

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In re Petition of	)
	)
Corr Wireless Communications, L.L.C.	)
For waiver of the Requirements of	)
Section 21.18 of the Commission's Rules	)
Regarding the Provision of E-911 Service	)

94-102

To: Chief, Wireless Telecommunications Bureau

PETITION FOR WAIVER

Corr Wireless Communications, L.L.C. ("Corr"), by its attorneys, hereby petitions the Commission to temporarily waive the requirements of § 20.18 of the Commission's rules. Those rules require CMRS carriers to provide enhanced 911 (Phase 2) service no later than six months after a request from a Public Safety Answering Point ("PSAP") is received (if a network-based solution is implemented) or on a gradually phased-in basis beginning October 1, 2001, if a handset solution is adopted. Corr has recently received requests from three PSAPs in its service area, thus triggering the six-month implementation deadline. As will be set forth below, the handset solution is flatly unavailable to Corr, while the network solution is so prohibitively expensive for such a small carrier as to be confiscatory. Corr is therefore proposing a slightly more graduated implementation schedule than the rules require, a schedule which will permit substantive Phase II service to begin early next year, with a prompt phase-in of greater coverage over the following nine months. This phased-in approach will take into account the combination

of fiscal constraints on small rural carriers and the practical difficulties of providing Phase II-level service in remote areas.

I. Background

Corr is a small CMRS carrier operating in the north-northeast quadrant of Alabama. Originally affiliated with a family-owned rural LEC, Corr has tried to take advantage of the latest technologies to make high quality mobile telephone service available to the residents of rural Alabama. for nearly a decade, it has operated the block B cellular system in AL RSA 1. More recently, it began offering PCS service in Decatur and Huntsville, Alabama. Its total subscribership is less than 21,000. Because of the low overall population density in Corr's markets, the per cell site cost of Phase II is economically infeasible.

Corr supports the concept of E-911 service. It is owned by a family which lives and works in the community to which it provides wireless phone service; it is a family that is committed to serving that community in the best service-oriented traditions of the old telephone net work. To that end, despite being much smaller than the former Bell companies which serve the largest markets in Alabama, Corr has actively participated in Phase I proceedings with the Alabama legislators to develop and implement the provision of Phase I E-911 service. The President of Corr served three years as the Chairman of a County 911 board, and was instrumental in bringing E-911 service to that County. Corr was also working with the legislature in 1999 to develop a plan for Phase II E-911 service when the FCC adopted its *Second Report and Order* in CC Docket 94-102.[1] At that point, when the legislature realized that CMRS carriers in the state would be

[1]Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, *Second Memorandum Opinion and Order*, 14 FCC Rcd 20850 (hereafter, "*Second Report and Order*").

obligated to provide E-911 service regardless of whether the state provided a funding mechanism for it, all negotiations with the state effectively ceased. The incentive for the state to develop and fund a mechanism for reimbursing CMRS carriers for the service had disappeared, and with it the possibility of getting widely based public financial support for the E-911 service.[2] Corr has now received three requests for Phase II from PSAPs in its service areas. Under the Commission's rules, Corr has two options. It may employ the handset-based solution prescribed by the *Third Report and Order* in this Docket[3] or it can proceed to implement the network solution.

A. The Handset Solution is Not Available to TDMA Systems.

Corr uses an industry-standard Lucent Technologies TDMA-based network of base stations and switching equipment. When the possibility of relying on a handset-based solution to the provision of E-911 service was raised in the *Third Report and Order*, Corr tried to confirm with its equipment vendor whether this was feasible within the particular network configuration used by Corr. It took a great deal to time, but Lucent finally confirmed that, unlike its CDMA systems, its TDMA system would not support the handset solution. Attached hereto is a letter from Lucent's Senior Management of Network Software confirming that fact. No other manufacturer has expressed an interest in providing TDMA handsets with the necessary ALI capabilities. Obviously, Corr's network was installed optimized and embedded years ago, before the possibility of E-911 Phase II was even on the horizon. Having reasonably selected and installed a Lucent TDMA mobile radio system, it is now foreclosed from relying on the handset solution. It appears from the FCC's *Third Report and Order* that the Commission was unaware that the handset solution was not a viable option for TDMA carriers, but that is in fact the case.

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[2]While Corr has requested the State Wireless E-911 Board to provide compensation for its provision of E-911 service pursuant to a state statute, it is unlikely that any such funding will be forthcoming.

[3]*E-911 Third Report and Order*, 14 FCC Rcd 17388 (1999)

B. The Network Solution is Prohibitively Expensive.

This left Corr with only the network solution. Corr has been monitoring the costs involved in providing E-911 service in anticipation of having to factor these costs into its capital and operating budget projections. For many months, the vendor community was very reluctant to provide any kind of hard data about how much the equipment and software necessary to provide E-911 Phase II would cost. Corr was initially informed that the costs from one particular manufacturer would run $75,000.00 per cell site. That estimate was later revised down to $25,000.00 per cell site, then up again. The hardest figures now available will require an average of just under $40,000.00 per cell site.[4] Still, with 70 cell sites in service, the cost to Corr will be over $2,750,000 for cell site equipment plus an additional $281,000.00 in modifications to the switch. (See Attachment B.) In addition, we estimate there will be approximately $45,000.00 in recurring monthly costs attributable to the E-911 Phase II service. Because the service is mandatory, we do not anticipate that there will be any revenue enhancement from these expenditures. The financial burden of this service is therefore enormous in absolute terms. To serve just the first three counties which have requested service would require an outlay of approximately $1.5 million, with an additional $1.5 million required to serve other counties for which Phase II requests are expected.

Those outlays must be contrasted with Corr's projected revenues. Over the past years, Corr has generated gross revenues of $3.1 million in 1995, $4.0 million in 1996, $6.9 million in 1997, and $7.0 million in 1998. With subscribership reaching its peak under the typical "S" curve of service penetration, Corr cannot anticipate substantial future revenue growth absent the

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[4]Assuming that 25% of Corr's 70 cell sites will require enhanced features necessary to make up for the lack of signal triangulation which prevails in a substantial portion of Corr's service territory.

introduction of new services. Roaming revenue (which represents a significant portion of Corr's revenue stream) will be severely reduced in the future as Corr's surrounding carriers leverage their wide area markets to extract roaming rate concessions from Corr. Thus, while the network-based E-911 solution will increase costs dramatically, there will be no corresponding revenue to make up the shortfall.

Simply raising rates, as the Commission's *Second Report and Order* seemed to contemplate, is not feasible. While it is true that there is no regulatory constraint on raising CMRS rates, the laws of economics continue to operate. Given the highly competitive nature of the CMRS industry at the present time, it would be impossible for Corr to raise its rates sufficiently to cover the increase in its costs. CMRS service is highly elastic with little customer loyalty; small price changes degrade the customer base since less expensive competing services are viewed as fungible by the consumer. This is one reason why small local and regional carriers such as Corr are placed at disadvantage by the E-911 plan: the large urban carriers can spread and recover the costs of the service over millions of customers while small carriers have only a limited pool to draw from. The disadvantage to small carriers is heightened even further when we consider that per capita costs of providing E-911 are often higher for small carriers in rural areas. The triangulation necessary to make ALI work flows naturally from the network design of an urban area without the need for new cell sites or equipment specifically added for E-911 purposes. Rural systems like Corr's tend to be designed to cover strings of highways rather circles of densely populated areas. *Third Report and Order*, 14 FCC Rcd 17388, 17400 (1999). Thus, we anticipate either that new cell sites would be needed to ensure that a network E-911 system functioned properly or that supplemental "angle of arrival" add-on antennas (costing

$76,000.00 per cell site) would be needed to meet the precision level demanded by the Commission's rules.

Weighed against these costs, we must consider the limited benefits to be gleaned from the expenditures. In Limestone County, the first jurisdiction to request Phase II service, Corr has a total of 77 subscribers. In a recent typical week, only 2 out of 184 Phase I emergency calls were placed in Limestone County. Given this degree of usage, Corr would be investing approximately half a million dollars to enhance the E-911 capability for about a hundred calls per year in that county. Under any prudent cost/benefit analysis, no one would order service at a cost of $5,000.00 per call. Even amortized over 10 years, $500.00 per emergency call could not be rationally justified. Yet this is what the rules would require.

II. Waiver is Warranted

Waivers of the Commission's rules are appropriate where "in view of the unique or unusual factual circumstances of the instant case, application of the rule(s) would be inequitable, unduly burdensome, or contrary to the public interest, or the applicant has no reasonable alternative." 47 C.F.R. 1.925(b)(3)(ii). *Amendment of 22.949 of the Commission's Rules*, 2000 FCC Lexis 457 (Feb. 8, 2000), *Michael Jenkins dba Page Me*, 199 FCC Lexis 6477 (Dec. 17, 1999). In adopting the *Second Report and Order* in Docket 94-102, the Commission expressly recognized that there would be instances where the burden of providing E-911 service would be significant. *Second Report and Order* at 17457-8. The Commission pointed to this relief mechanism in defending its E-911 scheme to the Court of Appeals, representing that waivers would be available to alleviate the burden of E-911 service for carriers who will be abnormally burdened financially. *U.S. Cellular, et al. v. FCC*, Case No. 00-1072, D.C. Cir., FCC Brief at 429.

It is undisputed that rural cellular carriers face abnormal financial burdens in providing telecommunications service. In every single facet of telecommunications regulations – except E-911 – the Commission has recognized the unique difficulties of rural telecommunications service and has provided appropriate subsidies, exemptions, or implementation deferrals which compensate for these realities. Here the Commission did recognize that rural carriers "may face distinct challenges in implementing Phase II," *Fifth Report*, at Para. 21. The Commission further indicated that it had established the waiver mechanism precisely to take care of such situations. *Id.* In outlining the prerequisites for a waiver, the Commission indicated that it expects waiver requests to be specific, focused, and limited in scope. It also expects carriers with no solution available to employ a solution that comes as close as possible, in terms of providing reasonably accurate location information, as soon as possible. *Second Report and Order*, *supra*, at 17458. As will be set forth below, Corr has met these tests as best it can under the circumstances.

First, we must recognize that two methods of relief for rural carriers which the Commission primarily relied on to ease the regulatory burden of its rules are not available to Corr. The handset solution was viewed by the Commission as a means of offering Phase II at the same per subscriber price as urban carriers. *Fifth Report* at Para. 19. Corr agrees that this might have greatly alleviated the structural expenses of the new service. Unfortunately, that solution is flat out unavailable to TDMA systems. The Commission cannot expect carriers to rip out and abandon their entire network of facilities in order to provide these services. In the CALEA context, for example, the FBI takes into account the particular infrastructure which the carriers already have in place, and it assesses the obligation to upgrade or provide CALEA capabilities with that embedded structure in mind. (The practicality of the FBI's view is perhaps influenced by the fact that the FBI would have to pay for upgrades under certain circumstances. The

imposition of a financial obligation induces a heightened sense of frugality.) *See* 47 U.S.C. § 1006. Here, as we have seen, Lucent's TDMA system will not support the handset solution. Corr simply does not have the economic clout to insist that Lucent or any other equipment manufacturer develop such a configuration for TDMA systems.

Secondly, the Commission seems to have believed that there were equipment vendors who were offering to install network solutions on a free or "nothing up-front" basis. *Fourth Report and Order* at Para. 71. Corr has found no vendor who is willing to supply a network infrastructure to it for free. Thus, neither of the two options which the Commission had envisioned as easing the burden on smaller carriers is available to Corr.

Mindful of the Commission's directive to do the best a carrier can, Corr timely implemented Phase I of the E-911. Corr is providing Phase I for all seven of the counties in its service area which have requested such service. The Corr Phase I implementation currently provides the location of the cell site through which the 911 call is being placed. The system has already been used successfully to locate callers in distress.

In the absence of a handset solution, Corr proposes the following implementation plan. It will:

(i) immediately order and install the switch-related infrastructure necessary to provide Phase II;
(ii) provide Phase II service to the top 35% of the cell sites of any requesting jurisdiction within 9 months of receiving a request;
(iii) provide service to the top 50% of the cell sites within 12 months of request; and
(iv) provide service to the top 75% of cell sites within 18 months of request.

For this purpose, the top 35/50/75% of cell sites are measured by demand for 911 service. In rural areas, Corr has found that 911 calls are not necessarily related to residential population or territory; rather, 911 calls seem to be concentrated in certain cells which are often associated with

high traffic volume. Corr's proposal here is to concentrate its Phase II resources in those cells where the need for Phase II is greatest, i.e., in the cells where 911 calls are made most frequently. This approach effectively conserves scarce resources by putting the solution where the problem is rather than scattering facilities broadly where there is very little need for them. The gradual phase-in schedule follows the same principle while easing the economic burden.

The proposal to serve only the top 75% of cell sites rather than 100% is also founded on the economic realities of rural areas. There will be virtually no demand for 911 service in the remotest parts of Corr's service areas. As noted in the example of Limestone County, to provide Phase II service to the remotest parts of these rural areas would become mind-bogglingly expensive. The incremental cost, for example, of providing service to areas with little traffic reach as much as $10,000.00 to $15,000.00 per emergency call, clearly a bizarre consequence that no one could rationally have intended. The analogy might be that building a hospital or emergency room in these remote areas would certainly benefit the few people who live there, but the cost to society would be hundreds of thousands of dollars per bed. So those hospitals don't get built.

To meet even these proposed benchmarks will call for sacrifices on Corr's part in terms of both profit and other service upgrades which would otherwise be contemplated and installed. Corr requests this waiver in a good faith effort to comply with the spirit and intent of the E-911 rules on a basis and on a timetable which are within the bounds of the fiscally and technically possible.

III. Conclusion

It is clear from the facts set forth above that Corr cannot employ the handset solution for technical reasons and cannot deploy the network solution fully for economic reasons. The Commission recognized that waiver of the rule would be appropriate in these circumstances.

Corr therefore requests that it be permitted to comply with § 10.18 of the Commission's rules on the slightly modified basis proposed above.

Respectfully submitted,

CORR WIRELESS COMMUNICATIONS, L.L.C.

By _____
Donald J. Evans

FLETCHER, HEALD & HILDRETH, P.L.C.
1300 North 17th Street, 11th Floor
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703-812-0400

June 22, 2001

Attachment A

Subject: E911 Phase II Products
2001

Date: February 28,

From: Curtis A. Miller
IHC 2V-216
630-979-8845

To Bryan Corr:

In response to your inquiry, this is to confirm Lucent's current E911 Phase 2 TDMA solution, available with Release 16.0, which became Generally Available December 2000, is a network based application. Lucent at this time does not have a Handset based solution available for TDMA customers.

Curtis A. Miller
Sr Mgr Ntwk Software
Product Management

Copy to:
J. C. Smith

Corr Wireless, Phase II 911 implementation costs

Geolocation Control System	$ 81,000
SCP Pair	$ 100,000
Central DACS unit	$ 100,000
MPC	recurring charge
Lucent software	tbd
Lucent switch hardware	tbd
TOTAL MTSO equipment	**$ 281,000**

Per cell site costs (2 different configurations)	
2 Channel TDOA only	**$ 27,025**
TDOA/AOA	**$ 76,225**

TOTAL cost, assuming 70 sites, and assuming 25% will need AOA	**3,033,750.00**